

12.47 kV SYSTEM: CLEARANCE OF LINES AND EQUIPMENT OPERATING PROCEDURE

APPLICATION

Clearing the lines and equipment on the 12.47 kV system prior to start of work. This procedure is part of the operations manual for the 12.47 kV power system. See ADMN-056 for an overview of the manual's contents, including related procedures.

SPECIAL INSTRUCTIONS

- Any Facilities personnel performing this procedure must be familiar with the general operating and information procedures regarding this system.
- See OPER-253 for appropriate protective clothing and equipment.
- Equipment Required:
 - LBL locks and tags
 - Voltage rated hot stick
 - ASTM rated ground clusters

WORK STEPS—Clearance of Lines and Equipment

1. Obtain clearance for work on any 12.47 kV line, equipment, or other facilities that have been isolated from all sources of energy. Clearances are only granted by the O&M Electrical Superintendent/Supervisor. Test circuit to verify that no voltage is present. Grounding is required for clearance to work on electrical apparatus and lines. Grounding must be reviewed and approved by the O&M electrical superintendent/ supervisor and Facilities' electrical engineer in charge of work.
2. Check all switches open. **IF** locking mechanism is provided, lock and tag per OPER-045, Lockout/Tagout. If switches used as clearance points have power-operated mechanisms, mechanically disconnect and remove control power.
3. Rack out, lock, and tag all drawout circuit breakers. Remove control power.
4. Verify contacts that cannot be visually verified open using approved potential indication devices. Install tags.
5. Remove locks and tags. Switches or circuit breakers that are locked and/or tagged must not be operated until all persons have reported clear of line or apparatus, and their personal lock and tags have been removed.

WARNING: The 125 volt DC cable bus and 120VAC bus are energized, feeding breaker central power to each cubicle. Refer to DC and AC panel schedules for current identification.

6. Install barriers around exposed apparatus or equipment. **IF** work is performed on buses, in cells, or on apparatus or equipment where there are, or may be, exposed energized parts and there is any possibility that contact may be made with such parts, barricades and warnings must be installed. Safeguards may include barriers, signs, barricade tape, etc.
7. Test equipment and lines for grounds and insulation resistance. Equipment or lines which have been cleared for work, inspection, safety, etc., must be tested when work is completed, and before it is returned to service.
8. Verify proper phase rotation for radial circuits. **IF** any work on a circuit involves any possibility of incorrect phasing, the circuit must be phased before paralleling with other circuits.

9. Verify proper relay and associated equipment operation prior to returning to service. **IF** any work on relays was performed, the relay and associated equipment must be checked in accordance with the appropriate maintenance manual.

RESPONSIBILITIES AND CONTROLS

Completion of the following signature lines constitutes approval of this procedure:

REV NO.	SME	REVIEWED BY	APPROVED BY / DATE	REVISION DATE
3	<i>James Murphy</i> Elec Shop Supv	<i>Lawrence D. Domanski</i> Chief Elec Eng	<i>Dennis Nielsen</i> 5/30/07 Plant Ops Mgr	4/27/07
	<i>James Murphy</i> (Print Name)	<i>LAWRENCE D. DOMANSKY</i> (Print Name)	<i>DENNIS NIELSEN</i> (Print Name)	OPER-254